

REMARKS:

Claims 16-27 are in the case and presented for consideration.

The undersigned verifies that no new matter has been added to the claims which are believed supported, among other places, in the specification at: page 4, lines 19-27; page 5, lines 1-10, 21; page 5, line 24 to page 6, line 13; as well as at page 6, lines 18-21 and in examples 1-31.

The list of polymers in claim 18 are based on the polymers which are illustrated in the examples.

The claims have also been drafted in view of the examiner's comments and objections to the previously presented claims under 35 U.S.C. 112. When necessary, proper Markush groups have been utilized and an attempt has been made to avoid inconsistency between the dependent claims and their parent. The claims now lead with composition claims 16-23 followed by method claims 24-27 which further limit independent composition claim 16. During the brief, yet cordial, telephone conversation between the undersigned and the examiner on October 20, 2003, the examiner indicated that changing the order of the claims of those presented originally should not pose a problem and that method claims dependent from composition claims should be acceptable so long as 35 U.S.C. 112 is otherwise satisfied.

By this amendment, thus, the application and claims are believed to be in proper form under 35 U.S.C. 112, first and second paragraphs.

Claim 16 now defines the composition as including, among other things, and oligomer of one monomer that is compatible with the binder and of at least one phosphonated monomer.

Both the monomer that is compatible with the binder and the phosphonated monomer are also each selected from a Markush group of monomers.

Claim 16 is believed to be novel and unobvious over the prior art for the reasons that follow:

Discussion of the Prior Art

U.S. Patent 5,980,629 to Braig et al.

Braig discloses corrosion inhibiting coating compositions for metals, comprising:

- a) an organic film-forming binder; and
- b) a corrosion inhibitor consisting in a compound of formula (I) or a salt of a compound of formula (I') and an amine of formula (II) or with zirconium bismuth or calcium (col. 1, line 62 to col. 4, line 54).

A compound of formula (I) or formula (I') can be described as amino phosphonic or amino diphosphonic molecules, one carbon atom separating the amino function from the phosphonic function(s).

The film forming binder is a polymer which does not comprise any Phosphorus bearing function (col. 13, lines 52-59).

The composition may additionally comprise additives which are traditionally used in coating compositions (col. 14, line 44 to col. 15, line 5).

U.S. Patent 4,505,748 to Baxter et al.

Baxter discloses anti-corrosive coating compositions comprising an anti-corrosive pigment component and a corrosion passivator (col. 1, lines 41-50).

The anti-corrosive pigment component is a salt of a polyvalent metal cation and

an organic polyphosphonic acid.

The phosphophonic acid molecules which are illustrated in this document are either alkylphosphonic acid molecules or a polyamine bearing alkyl phosphate substituents on their amine functions (col. 2, line 4 to col. 3, line 31).

The composition may further comprise a film-forming binder (col. 6, lines 44-52).

The passivator is a compound which is capable of acting as an oxydising agent of the metal to be protected (col. 5, line 66 to col. 6, line 26).

EP 0 763 574 to Omoto, et al.

Omoto, et al. (or EP '574) discloses a coating composition for preventing rust or rust stain, which comprises a compound resulting from the reaction of an amino resin with an organic polyphosphonic acid. It may also comprise a binder resin, a solvent and additives.

ASM Hand Book

This reference discloses the preliminary cleaning and degreasing of a metal surface prior to its treatment with a composition preventive of corrosions.

Discussion

The invention as defined by the new set of claims can be summarized as follows.

The composition comprises a film forming binder, a corrosion-inhibiting additive reactive with metal, an oligomer based on at least two monomers: one

monomer being compatible with the binder and one monomer being phosphonated.

Baxter and Omoto describe compositions comprising polyphosphonated molecules, which are of the polyamine type. These polyamines are grafted with phosphonate functions.

None of these documents discloses a polymer based on one of the monomers called for in claim 16.

Braig discloses a composition comprising a (non phosphonated) polymer and an aminophosphonate non polymeric molecule.

These compositions according to claim 16 have advantages in comparison with the prior art composition: they are based on materials which are compatible one with the other. The phosphonated oligomer comprises monomers which are compatible with the binder. Therefore this compound at the same time provides an anti-corrosion functionality and contributes to the compatibility of the formula.

The prior art compositions are based on materials which are not necessarily compatible one with the other. One consequence is a lesser adherence of the formulas on the metal, which is the first step of the corrosion process.

Whereas compositions according to the invention are cohesive and not prone to decanting or destabilization of any type once applied on the metal.

This accounts for the especially good results obtained in long term anti-corrosion tests which are illustrated in the present application.

Accordingly, claim 16 is believed novel and unobvious over the cited references and in condition for allowance.

Claims 17-23 further limit the composition and are believed to further distinguish

the invention over the prior art and are likewise believed to be in condition for allowance.

Method claims 24-27 are all limited to the composition of claim 16 and further limit the invention to a particular method which is also believed to further distinguish the invention over the prior art.

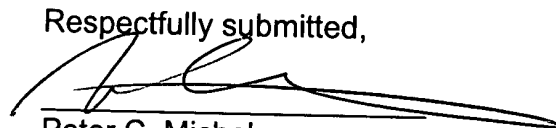
By this amendment, thus, the application and claims are believed to be in condition for allowance and favorable action is respectfully requested.

The Examiner is respectfully invited to telephone the undersigned if any matters remain which can be treated by telephone interview in the interest of reaching a conclusion to the prosecution of this case.

Change of Attorney's Docket Number

If at all possible, it is requested that the attorney docket number listed in the records of the U.S. Patent and Trademark Office be changed from the docket number originally utilized to Docket No. J737-004 US.

Respectfully submitted,



Peter C. Michalos
Reg. No. 28,643
Attorney for Applicants
(845) 359-7700

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NOTARO & MICHALOS P.C.
100 Dutch Hill Road, Suite 110
Orangeburg, New York 10962-2100
Customer No. 21706